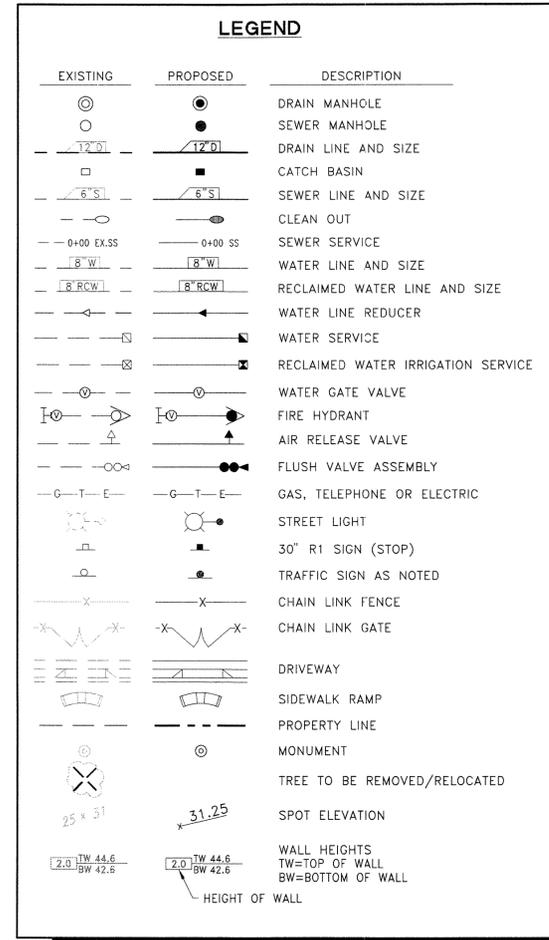


PROJECT/ENGINEER'S NOTES

- ADD (4600) TO ALL FINISHED GRADE ELEVATIONS.
- CONTRACTOR SHALL HAVE APPROVED DUST CONTROL, GRADING PERMITS AND STORM WATER POLLUTION PREVENTION PLAN PRIOR TO STARTING CONSTRUCTION.
- CONTRACTOR SHALL USE EXTREME CARE TO STAY WITHIN AREAS OF WORK AS SHOWN ON THE PLANS TO MINIMIZE DISTURBANCE OF EXISTING VEGETATION.
- ALL WORK IN NDOT RIGHT-OF-WAY SHALL CONFORM TO THE STATE OF NEVADA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2001 EDITION AND THE STATE OF NEVADA DEPARTMENT OF TRANSPORTATION STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION, 2007 EDITION.
- THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF PROPER SHORING OF TRENCHES IN ACCORDANCE WITH OCCUPATIONAL SAFETY LAWS. THE DUTIES OF THE ENGINEER DO NOT INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY IN, ON, OR NEAR THE CONSTRUCTION SITE.
- THE CONTRACTOR SHALL PURSUE THE WORK IN A CONTINUOUS AND DILIGENT MANNER, CONFORMING TO ALL THE PERTINENT SAFETY REGULATIONS, TO INSURE A TIMELY COMPLETION OF THE PROJECT.
- ALL TRAFFIC CONTROL AND BARRICADING WITHIN CARSON CITY RIGHT-OF-WAY SHALL CONFORM TO SECTION 100.33, 332.04 AND 332.05 OF THE STANDARD SPECIFICATIONS, PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND THE UNR T2 CENTER TEMPORARY TRAFFIC CONTROL GUIDELINES LATEST EDITION. NO STREET CLOSURES WILL BE ALLOWED WITHOUT PRIOR APPROVAL OF A TRAFFIC CONTROL PERMIT.
- THE CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT ("CALL BEFORE YOU DIG") AT 1-800-227-2600 AT LEAST 2 WORKING DAYS PRIOR TO START OF CONSTRUCTION, AND COMPLY WITH THE REQUIREMENTS OF NAC CHAPTER 455 - EXCAVATION AND DEMOLITION.
- THE LOCATION OF EXISTING UTILITIES SHOWN ON THESE DRAWINGS IS BASED ON THE BEST INFORMATION AVAILABLE TO THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THESE LOCATIONS AT THE PROPOSED POINTS OF CONNECTIONS AND IN AREAS OF POSSIBLE CONFLICT WITH NEW UTILITY INSTALLATION, PRIOR TO BEGINNING CONSTRUCTION. POT-HOLING IS REQUIRED. SHOULD THE CONTRACTOR FIND ANY DISCREPANCIES BETWEEN THE CONDITIONS EXISTING IN THE FIELD AND THE INFORMATION SHOWN ON THESE DRAWINGS, HE SHALL NOTIFY THE ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION.
- SHOULD IT APPEAR THAT THE WORK TO BE DONE, OR ANY MATTER RELATIVE THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.
- MODIFICATIONS TO THE APPROVED PLANS REQUIRES REVIEW AND APPROVAL BY CARSON CITY DEVELOPING ENGINEERING DIVISION. WORK PERFORMED WITHOUT WRITTEN APPROVAL BY THE DIVISION WILL REQUIRE REMOVAL AT THE CONTRACTORS EXPENSE.
- THE APPROVED PLAN, PERMIT AND INSPECTION RECORD MUST BE ON THE JOB SITE AT ALL TIMES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION SIGNING, BARRICADES AND TRAFFIC DELINEATION TO CONFORM TO THE STATE OF NEVADA, DEPARTMENT OF TRANSPORTATION, "NEVADA TEMPORARY TRAFFIC CONTROL GUIDELINES" LATEST EDITION.
- THERE ARE KNOWN REMAINS/ARTIFACTS ON THIS SITE. SHOULD ANY PREHISTORIC OR HISTORIC REMAINS/ARTIFACTS BE DISCOVERED DURING SITE DEVELOPMENT, WORK SHALL BE TEMPORARILY HALTED AT THE SPECIFIC SITE AND THE CITY'S CONSTRUCTION MANAGER SHALL BE NOTIFIED. THE CITY'S CONSTRUCTION MANAGER SHALL NOTIFY THE DEPARTMENT OF CULTURAL AFFAIRS, STATE HISTORIC PRESERVATION OFFICE. THE PERIOD OF TEMPORARY DELAY SHALL CONTINUE UNTIL A NOTICE TO PROCEED HAS BEEN ISSUED TO THE CONTRACTOR BY THE CITY'S CONSTRUCTION MANAGER.
- ALL DIMENSIONS AND DISTANCES ARE TO BACK OF CURB, CURB RETURN, FACE OF BUILDING, FACE OF WALL, FLOW LINE, PROPERTY LINE, CENTER OF STRIPING, CENTER LINE OF PIPE, OR END OF IMPROVEMENTS UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL, AT ALL TIMES DURING CONSTRUCTION, PROTECT FROM DAMAGE EXISTING IMPROVEMENTS ON AND AROUND THE SITE, INCLUDING, BUT NOT LIMITED TO, PAVEMENT, CURB & GUTTER, SIDEWALK, LANDSCAPING, SIGNAGE, STORM & SANITARY SEWERS, AND ALL UTILITIES. THE CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR THE REPAIR OF ANY IMPROVEMENTS (EXISTING OR PROPOSED) DAMAGED THROUGHOUT THE COURSE OF CONSTRUCTION.
- THE CONTRACTOR SHALL PROVIDE AND MAINTAIN AT ALL TIMES EMERGENCY ACCESS TO THE PROJECT SITE TO THE SATISFACTION OF THE CARSON CITY FIRE DEPARTMENT.
- THE CONTRACTOR SHALL, UPON COMPLETION OF THE PROJECT, PREPARE AND SUBMIT TO THE OWNER RECORD DRAWINGS INDICATING BY DIMENSION AND DESCRIPTION ANY FACILITY CONSTRUCTED CONTRARY TO THAT SHOWN ON THESE PLANS.
- ALL QUANTITIES SHOWN HEREIN ARE APPROXIMATE AND USED FOR PERMIT AND BOND PURPOSES ONLY. THEY SHALL NOT BE USED IN ANY WAY FOR BIDDING OR CONSTRUCTION. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO CONDUCT QUANTITY TAKEOFFS FOR BIDDING AND CONSTRUCTION PURPOSES.
- INSPECTION REQUIREMENTS SHALL BE IN ACCORDANCE WITH CARSON CITY STANDARDS OR THE STANDARD SPECIFICATIONS, WHICH EVER IS THE MORE STRINGENT.
- NO CONSTRUCTION EQUIPMENT SHALL BE PARKED OR MATERIAL STORED IN PUBLIC RIGHTS-OF-WAY, OR THE NEVADA DEPARTMENT OF TRANSPORTATION.
- CONSTRUCTION STAGING. CONTRACTOR SHALL BE ENTITLED TO MAINTAIN A STAGING AREA AT THE PROJECT SITE IN ACCORDANCE WITH THE PROVISIONS OF THIS AGREEMENT. THE STAGING AREA FOR THE PROJECT SITE SHALL BE AT THE EXISTING PARKING AREA LOCATED AT THE SOUTHEAST CORNER OF THE PROJECT SITE ADJACENT TO NORTHRIDGE DRIVE. PRIOR TO THE ESTABLISHMENT OF ANY STAGING AREA AT THE PROJECT SITE, CONTRACTOR SHALL SUBMIT TO THE PUBLIC WORKS DEPARTMENT CONSTRUCTION MANAGER A PLAN FOR THE STAGING AREA. FENCING SHALL BE INSTALLED AROUND THE STAGING AREA. THE HOURS OF OPERATION OF THE CONSTRUCTION YARD SHALL BE NO EARLIER THAN 7:00 A.M. AND NO LATER THAN 4:00 P.M., MONDAY THROUGH FRIDAY.

GRADING NOTES:

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE UNIFORM BUILDING CODE, OSHA REQUIREMENTS FOR EXCAVATION, AND SPECIAL REQUIREMENTS OF THE PERMIT. VIOLATIONS SHALL RESULT IN THE STOPPAGE OF ALL WORK UNTIL THE VIOLATION IS CORRECTED.
- NO WORK SHALL BE STARTED WITHOUT FIRST NOTIFYING THE CITY INSPECTOR AT 775-887-2310 AT LEAST 1 WORKING DAY BEFORE WORK IS COMMENCED.
- SLOPES SHALL BE NO STEEPER THAN 2 HORIZONTAL TO 1 VERTICAL, OR AS DETERMINED BY THE SOILS ENGINEER AND APPROVED BY THE CITY.
- FILLS SHALL BE PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" AND THE CARSON CITY MUNICIPAL CODE HILLSIDE ORDINANCE (WHEN APPLICABLE).
- THE ENGINEER OF RECORD SHALL PROVIDE THE CITY WITH COPIES OF ALL TEST RESULTS ON A WEEKLY BASIS AND A BOUND REPORT OF THE TEST RESULTS AND INSPECTION REPORTS, ARRANGED IN CHRONOLOGICAL ORDER, AT THE COMPLETION OF THE PROJECT. THE ENGINEER OF RECORD SHALL PROVIDE THE CITY WITH AN OPINION REGARDING THE CONSTRUCTION SIMILAR TO THE FOLLOWING:
I HEREBY CERTIFY THAT I AM A LICENSED ENGINEER IN THE STATE OF NEVADA, TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THE PROJECT WAS CONSTRUCTED, IN GENERAL CONFORMANCE WITH THE PLANS AND SPECIFICATIONS, AND IN MY PROFESSIONAL OPINION, IS IN COMPLIANCE WITH APPLICABLE LAWS, CODES AND ORDINANCES.
- FILL AREAS SHALL BE CLEARED OF ALL VEGETATION AND DEBRIS, SCARIFIED, AND BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO THE PLACING OF FILL.
- PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS SHALL BE USED TO PROTECT ADJOINING PROPERTIES DURING CONSTRUCTION OF IMPROVEMENTS.
- DUST SHALL BE CONTROLLED BY THE CONTRACTOR TO THE SATISFACTION OF THE CITY AND IN ACCORDANCE WITH THE AIR QUALITY PERMIT FROM THE NEVADA DIVISION OF ENVIRONMENTAL PROTECTION WHEN REQUIRED.
- ALL STREETS SHALL BE MAINTAINED FREE OF DUST AND MUD CAUSED BY GRADING OPERATIONS. ALL OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE STORMWATER DISCHARGE PERMIT FROM THE NEVADA DIVISION OF ENVIRONMENTAL PROTECTION.
- ALL CESSPOOLS, SEPTIC TANKS, ETC., TO BE ABANDONED SHALL BE FILLED OR REMOVED IN ACCORDANCE WITH THE STATE OF NEVADA STANDARDS AND CERTIFIED BY THE ENGINEER OF RECORD.
- EXISTING WELLS TO BE ABANDONED SHALL BE CAPPED IN ACCORDANCE WITH THE STATE OF NEVADA DIVISION OF WATER RESOURCES REGULATIONS FOR WATER WELL AND RELATED DRILLING.
- THE DEVELOPER'S ENGINEER OR SURVEYOR SHALL SET GRADE STAKES FOR ALL DRAINAGE DEVICES AND THE CONTRACTOR SHALL OBTAIN INSPECTION BEFORE PLACING CONCRETE.
- FINISHED GRADING SHALL BE COMPLETED AND APPROVED, AND SLOPE PLANTING AND IRRIGATION SYSTEMS INSTALLED BEFORE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
- NO ROCK OR SIMILAR MATERIAL GREATER THAN 6 INCHES IN DIAMETER SHALL BE PLACED IN THE FILL UNLESS RECOMMENDATIONS FOR SUCH PLACEMENT HAVE BEEN SUBMITTED BY THE SOILS ENGINEER IN ADVANCE AND APPROVED BY THE CITY.
- THE SOILS ENGINEER SHALL APPROVE ALL GRADING INCLUDING COMPACTION REQUIREMENTS AND THE STABILITY OF SLOPES CREATED, EXISTING OR REMAINING.
- IN THE EVENT OF CHANGES ARISING DURING CONSTRUCTION, THE DEVELOPER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR REVIEW AND APPROVAL BY THE CITY. NO CHANGES IN THE DESIGN SHALL BE PERMITTED UNLESS WRITTEN APPROVAL IS GIVEN BY THE CITY.
- EROSION CONTROL:
A. IN CASE OF EMERGENCY CALL _____
B. A STANDBY CREW FOR EMERGENCY WORK SHALL BE AVAILABLE AT ALL TIMES. NECESSARY MATERIALS SHALL BE AVAILABLE ON-SITE AND STOCKPILED AT APPROVED LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES OR TO REPAIR DAMAGED EROSION CONTROL MEASURES.
C. AFTER A RAINSTORM, ALL SILT AND DEBRIS SHALL BE REMOVED FROM CHECK BERMS AND DESILTING FACILITIES. GRADED SLOPE SURFACE PROTECTION MEASURES DAMAGED DURING THE RAINSTORM SHALL ALSO BE REPAIRED.
D. FILL SLOPES AT THE PROJECT PERIMETER MUST DRAIN AWAY FROM THE TOP OF THE SLOPE AT THE CONCLUSION OF EACH WORKING DAY.
E. A 6-FOOT HIGH PERIMETER FENCE OR A 24 HOUR GUARD SHALL BE POSTED ON THE SITE WHENEVER THE DEPTH OF WATER IN A FACILITY EXCEEDS 18 INCHES.



STABILIZED CONSTRUCTION ENTRANCE

- ESTABLISHED CONSTRUCTION ENTRANCE PADS SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT INTO PUBLIC STREET RIGHT OF WAY. (4-8" QUARRY SPOILS OR 6" RIVER COBBLE)
- ADDITIONAL MATERIAL SHALL BE ADDED PERIODICALLY, IF NECESSARY, TO MAINTAIN PROPER FUNCTION OF THE PAD.
- IF THE ENTRANCE PAD DOES NOT ADEQUATELY REMOVE DIRT AND MUD FROM VEHICLE WHEELS SUCH THAT MUD AND DIRT TRACKING IS EVIDENT OFF SITE, ADDITIONAL MEASURES MUST BE TAKEN. SUCH MEASURES MAY INCLUDE HOISING OFF WHEELS BEFORE VEHICLES LEAVE THE SITE OR OTHER CONSTRUCTION TECHNIQUES/WORK OPERATION MODIFICATIONS. WHEEL WASHING SHALL BE DONE ON THE GRAVEL PAD AND WASH WATER SHALL DRAIN THROUGH A SILT-TRAPPING STRUCTURE PRIOR TO LEAVING THE CONSTRUCTION SITE.

SWPPP NOTE

- THE CONTRACTOR SHALL HAVE A PLAN IN APPROVED AN IN PLACE FOR THE PROJECT SITE FOR DUST CONTROL & SWPPP. PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES AT THE PROJECT SITE, THE CONTRACTOR SHALL SUBMIT TO NDEP A PLAN FOR DUST CONTROL AND A SWPPP FOR THE PROJECT SITE. THE PLAN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF NEVADA LAW, INCLUDING, WITHOUT LIMITATION, THE POLLUTION CONTROL AND NPDES REGULATIONS OF THE NEVADA DEPARTMENT OF ENVIRONMENTAL PROTECTION. THE STORM WATER POLLUTION PREVENTION PLAN(SWPPP), WHEN APPROVED BY NDEP, SHALL BE REFERRED TO HEREIN AS THE DUST CONTROL PLAN AND SHALL BE DEEMED A PART OF THIS AGREEMENT. CONTRACTOR SHALL, AND SHALL CAUSE ITS SUBCONTRACTORS TO AGREE TO, COMPLY IN ALL MATERIAL RESPECTS WITH THE DUST CONTROL PLAN AND ANY MODIFICATIONS, THERETO REQUIRED DURING THE COURSE OF CONSTRUCTION OF THE DEVELOPMENT SHALL BE SUBMITTED TO THE HEALTH DEPARTMENT FOR APPROVAL.

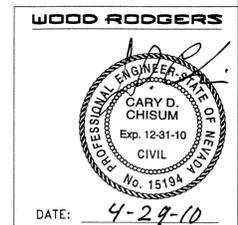
ABBREVIATIONS

AB	AGGREGATE BASE
AC	ASPHALT CONCRETE PAVEMENT
AVRV	AIR VACUUM RELIEF VALVE
BC	BEGIN CURVE
BM	BENCH MARK
BVC	BEGIN VERTICAL CURVE
BOW	BACK OF WALK
BW	BOTTOM OF WALL
CB	CATCH BASIN
CL	CENTER LINE
CONST	CONSTRUCT
CR	CURB RETURN
CT	COURT
DIP	DUCTILE IRON PIPE
SDMH	STORM DRAIN MANHOLE
DR	DRIVE
E	EAST
EC	END CURVE
ELEV	ELEVATION
EP	EDGE OF PAVEMENT
EX	EXISTING
EXIST	EXISTING
EVC	END OF VERTICAL CURVE
FES	FLARED END SECTION
FG	FINISH GRADE ELEVATION
FH	FIRE HYDRANT
FL	FLOW LINE
FLG	FLANGE
FM	FORCE MAIN
FVA	FLUSH VALVE ASSEMBLY
GR	GRATE
GB	GRADE BREAK
GV	GATE VALVE
HP	HIGH POINT
HDPE	HIGH DENSITY POLYETHYLENE
INV	INVERT
JP	JOINT POLE
L	LEFT
LF	LINEAR FEET
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
MON	MONUMENT
N	NORTH
PCC	POINT OF COMPOUND CURVE
PI	POINT OF INTERSECTION
PIVC	POINT OF INTERSECTION VERTICAL CURVE
PL	PROPERTY LINE
PP	POWER POLE
R, R=	RADIUS
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
PRC	POINT OF REVERSE CURVATURE
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENT
RCW	RECLAIMED WATER
R	RIGHT
RW	RIGHT OF WAY
S	SOUTH
SE	SANITARY SEWER EASEMENT
SHT	SHEET
STA	STATION
SS	SANITARY SEWER SERVICE
SSMH	SANITARY SEWER MANHOLE
SW	SIDEWALK
T	TANGENT
TBC,TC	TOP BACK OF CURB
TYP	TYPICAL
TP	TELEPHONE POLE
TW	TOP OF WALL
W	WEST
WM	WATER MAIN

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
				CARSON CITY
				DRAWING NO. C-1-1.1.1
				DATE 7/2009

APPROVED BY: 7/09

GENERAL NOTES



DATE: 4-29-10

DATE: JULY 2009 SCALE: AS SHOWN DRAWN BY: JLH DESIGNED BY: CDC CHECKED BY: CDC

WOOD RODGERS DEVELOPING INNOVATIVE DESIGN SOLUTIONS 5440 Reno Corporate Drive Reno, NV 89511 Tel 775.823.4068 Fax 775.823.4066

NEVADA

IMPROVEMENT PLANS FOR CARSON CITY WETLANDS SOUTH ACCESS, NORTHRIDGE DRIVE IMPROVEMENT NOTES

CARSON CITY

PROJECT NO. 8059,011 DRAWING N-1

SHT 2 OF 18

GENERAL NOTES

Revegetation Treatment activities shall include the following tasks:
 Seedbed preparation, application of seed mix and mulch for site stabilization and plant establishment by the Contractor.
 All areas as noted on the plans shall be revegetated per the specifications provided herein. The Contractor is responsible to insure that the site preparation specifications and revegetation specifications are implemented as detailed herein and as directed by the City's Construction Manager.

SITE PREPARATION NOTES

Revegetation Treatment Area Temporary Stabilization:
 Immediately subsequent to disturbance of any soil surfaces, water shall be applied to maintain adequate dust control. Dust control activities shall continue until all disturbed areas have been treated for revegetation and have been inspected and approved by the City's Construction Manager.

Revegetation Treatment activities shall occur only between September 1 and December 1 to ensure that the highest potential delivered and stored winter soil moisture can be taken advantage of for long-term revegetation success. Revegetation activities must be completed prior to the onset of frozen soil conditions.

MATERIALS

Materials listed below by Trade name are done so to present preferred materials. The Contractor may propose alternative equivalents to these preferred materials. A substitution mixture of products may be proposed for approval by the City's Construction Manager by any awarded Contractor. All substitutions submitted for approval as an equal shall be submitted as a package and not as individual products, and shall be supported by documented proof of equivalent revegetation abilities as the Quattro Environmental products specified. The documentation must be in the form of test results obtained by independent peer-reviewed research efforts on similar landforms, soil types, aspect, climate, and elevation as the Quattro Environmental products.

The burden of proving the equality shall be the awarded contractor's responsibility. The determination of suitability and compatibility of a proposed substitution mixture shall be at the discretion of the City's Construction Manager.

All materials shall be provided by the Contractor. Thirty (30) days prior to the commencement of Revegetation Treatment activities, the Contractor shall submit to the City's Construction Manager all documentation required by these specifications. No materials supplied by the Contractor will be permitted for use unless previously approved in writing by the City's Construction Manager. Summary of documentations required:

- 30 days prior to the commencement of Revegetation Treatment activities, the Contractor shall provide a written statement of intentions to conduct site demonstration of application equipment calibration to the application rates specified.
- 30 days prior to the commencement of Revegetation Treatment activities, the Contractor shall submit documentation of soil amendment materials source, specifications and date and quantity of delivery.
- 30 days prior to the commencement of Revegetation Treatment activities, the Contractor shall submit documentation of the vendor reporting verification of the seed mix(es) ordered including species, varieties, pounds of Pure Live Seed (PLS) to be delivered and estimated date of delivery.

All required Statements shall be forwarded to the City's Construction Manager upon receipt.

SOIL AMENDMENTS FOR SEEDING

The Contractor shall provide vendor's letter of compliance, samples and specifications documenting that the soil amendment materials acquired by the Contractor meet the specifications provided herein.

The "nutritious bonded fiber membrane" hydraulic seeding slurry (to be applied in combination with the specified seed mix) refers to the following soil amendment materials that are specified as a complete package. Each product is specified based on its own ability to perform in combination with the other specified products.

The nutritious bonded fiber membrane hydraulic slurry shall be composed of the following or approved equivalents and applications rates as follows or as approved by the City's Construction Manager:

Material	Application Rate
Kiwi Power	5 gals/AC
Fertil-Fibers	2,000 lbs/AC
Atlas SoilLok*	65 gals/AC
Stronghold Fibers	40 lbs/AC
Pacer-Tracer	3 lbs/AC

Source of the Trade components of the above-referenced "nutritious bonded fiber membrane" is Quattro Environmental, Inc., Coronado, CA 92118 (619) 522-0044; Fax: (619) 522-0055

Soil Amendment and Tackifier Specifications:

The liquid amendment shall meet the following minimum specifications (e.g. Quattro Environmental Kiwi Power or equivalent).

- A non-toxic liquid complex of organically-derived microbacteria, enzymes, humic acid, organic wetting agents and biostimulants to flocculate compacted soil, improve water penetration and activate soil nutrients will contain not less than: 11.5% Sarsapogenin 20.0% Spirostant; 10.0% Sarsaponin; 10% Humic Acid; 10% Pargenin; 0.25% Cytokinins.
- The product must be biodegradable, non-polluting, non-volatile and non-toxic, and leave no undesirable residues in the soil. Chemically derived substitutions are not acceptable.
- It must not impair existing vegetative growth.
- Non-injurious to seeds, human, or animal life.
- Effective with either acidic or alkaline soils

Mulch material shall meet the following minimum specifications (e.g. Quattro Environmental "Fertil Fibers" or equivalent)

- Contains a nutrient ratio of 6-4-1 NPK, which is time released by combining ingredients with distinctly different degradation rates.
- Contains at least 12% composted layer poultry manure analyzing not less than 2-5-3 NPK.
- Contains not less than 3.5% N derived from natural proteins.
- Contains not more than 3.0% N derived from non-protein sources.
- Contains a minimum of 85% organic substances (derived from plant or animal material).
- Contains not less than 2.5% Calcium.
- Contains not less than 14%, nor more than 18% Crude Fiber.
- Contains not less than 5% OMRI-certified granular humic shale ore, itself comprising a minimum 45% humic acid, 4.5% fulvic acid, 1.5% sulfur, 2.25% iron, and 10% plant-derived mineral trace elements.
- Contains Sarsaponin.
- Biodegradable, non-polluting, non-volatile, non-toxic, free of weed seed, and contains no heavy metals.
- Contains not more than 13% moisture.
- Pelletized and bagged for handling ease

Stronghold Fibers Stronghold Fibers are the pure fibers produced from Yucca schidigera and are designed to promote water infiltration into the soil, while enhancing the holding performance of the hydraulic seeding slurry by providing mechanical cross bonding upon the soil surface. Stronghold Fibers are applied at a rate of 40 lbs/acre. Other products meeting the following salient characteristics will also be acceptable:

- Consist of pure fibers produced from the Yucca plant Yucca schidigera
- Particle size, through 40 mesh >20%, between 16 and 40 mesh +45%
- Bark particles +20%
- Fibers 1/2" - 1" >25%
- Remain functional through one growing season
- Product is organic and fully biodegradable.

Soil Binder (tackifier) The soil stabilizing compound shall be a polymer dispersion, (e.g. Quattro Environmental "ATLAS SoilLok" or equivalent) designed to form a flexible, water-insoluble, porous membrane (distinctive lattice-like structure) in the topmost soil layer when applied at 65 gals per acre. Land-Grab^{15/16} (Cognis) and Henkel 56-8379^{15/16} (Henkel) are also acceptable products and may be applied at the same rate. Other products meeting the following salient characteristics will also be acceptable:

- Consists of a poly(vinyl)-acetate compound containing not less than 55 percent active solids.
- Contains no poly-acrylates or poly(vinyl)-acrylates.
- Readily miscible in water.
- Flexible and retains its flexibility after curing.
- Does not inhibit water and oxygen infiltration.
- Organic, biodegradable, non-polluting, non-volatile, non-toxic, and leaves no undesirable residues in the soil.
- Does not impair existing vegetative growth.
- Does not re-emulsify once dry.
- Non-injurious to seeds, human and animal life.
- Non-flammable.
- Effective with either acid or alkaline soils.

SEED

All seed shall be in conformance with the Nevada Department of Agriculture requirements for freedom from noxious weeds, and will be delivered to the contractor at the project site pre mixed in accordance with the species composition presented below in the Seed Mix Tables. Each seed bag shall be delivered to the site sealed and clearly marked as to composition of each species, species purity, species percent germination, vendor's guarantee, and dates of test. In addition, the container shall be labeled to clearly reflect the quantity of Pure Live Seed (PLS) contained by species. Prior to seeding at the request of the City's Construction Manager, the Contractor shall provide letter of certification, original Association of Official Seed Analysts (AOSA) seed test results, and calculations of PLS content.

Seed Mix Treatment Area A - Upland

Common Name	Scientific Name	Seeds/PLS #	#'s PLS/Ac	Native/Introduced	Seeds/SF
GRASSES					
Great Basin Wildrye	Leymus cinereus	130,000	2.00	n	2
Indian ricegrass (Nezpar)	Achnatherum hymenoides	141,000	2.00	n	6
Inland saltgrass	Distichlis spicata	520,000	1.00	n	11
Creeping wildrye	Leymus triticoides	51,000	4.00	n	5
FORBS/LEGUMES					
"Lewis" blue flax	Linium Lewisii	293,000	1.00	n	7
Narrowleaf Indian paintbrush	Castilleja linariaefolia	4,915,000	0.10	n	11
Scarlet globemallow	Sphaeralcea coccinea	500,000	0.50	n	6
SHRUBS					
Shadscale	Atriplex confertifolia	94,900	2.00	n	4
Spiny Hopsage	Grayia spinosa	166,800	1.00	n	4
Fourwing Saltbush	Atriplex canescens	52,000	4.00	n	5
TOTAL		2,000	17.60		61

It is imperative that areas treated with soil stabilizing emulsion not be disturbed in any way after application. Any disturbance subsequent to application will reduce the integrity of the soil stabilizing emulsion.

EXECUTION

The Contractor at the direction of the City's Construction Manager shall complete all seedbed preparation and revegetation activities. Revegetation activities shall be completed in the following order unless the City's Construction Manager approves changes to the order of execution.

B. SEEDBED PREPARATION

Revegetation Treatment areas shall be scarified to a consistent uniform depth of three (3) inches in preparation for seeding. Hand scarification using soil rakes and/or small equipment that does not result in additional areas of disturbance shall be acceptable. The soil surface shall be left "rough" after scarification. Seedbed preparation shall not occur more than 48 hours prior to revegetation activities.

C. SEED AND SOIL AMENDMENTS APPLICATION

Areas to be seeded include all areas identified as Treatment Areas A&B on the Plan Sheets. Seeding shall not begin until the City's Construction Manager has approved the prepared Revegetation Treatment areas. The Contractor shall notify the City's Construction Manager not less than 72 hours in advance of any seeding to facilitate on-site inspection of revegetation activities. The City's Construction Manager will remove seed labels from the seed containers at the time of seeding to verify species in the mix, varieties, and application rate according to these specifications.

The Contractor shall exercise extreme care during application to minimize over spray as much as possible.

Nutritious Bonded Fiber Membrane and Seed Hydraulic Slurry Equipment:

The hydroseeding unit must be capable of providing a uniform application using water as the carrying agent. Do not use a hydroseeding unit equipped with gear driven pumps that can damage the seed. The Contractor shall use a hydroseeding unit equipped with centrifugal pump with a minimum discharge capacity of 105 PSI, 275 GPM, with 3/4 inch solid clearance. Tanks shall be equipped with paddle type agitator designed for maximum mixing extending the full length of the tank and supported on each end. The agitator shall be variable from 10 to 120 RPM and reversible. The hydroseeding unit shall provide valved by-pass back to the tank for liquid recirculation to implement mixing and allow remote valve operation.

All areas receiving the specified slurry shall be pre-wet with water to a depth of one inch. Immediately before slurry application. The soil surface shall not be permitted to dry prior to application of slurry. Extreme care shall be employed so that rills and erosion do not occur.

The hydroseeding unit must be flushed and washed out to eliminate any contamination from previous use. The Contractor shall mix and apply the nutritious bonded fiber membrane hydraulic slurry and seed in tandem between September 1 and December 1, and before the onset of frozen soil conditions. Seed shall be added to the slurry mixture immediately prior to beginning application. The slurry mixture shall be applied within 15 minutes of adding the seed to the slurry mixture. The slurry mixture components shall be mixed in accordance with the manufacturer's specifications (see "Mixing Specifications" below).

Provide a copy of the manufacturer's "Mixing Recommendations" to the City's Construction Manager at least 72 hours prior to application.

Mixing Specifications: (based on 3,300 gal. Hydroseeder, seeding two (2) acres per load)

- Begin filling tank with water, but shut off at approx. 1,500 gallons water total.
- Add **Fertil-Fibers NutriMulch** with agitator running to help break up the **Fertil-Fibers** pellets.
- Shake **Kiwi Power** containers vigorously and add to slurry. Rinse containers with water and add to slurry.
- Add **Atlas SoilLok** (or Cliffhanger Tack) steadily to facilitate even dispersion in the tank.
- Slowly add **Pacer-Tracer**.
- The truck is then driven to the seeding site, where the seed is added (always, always last!) to the slurry just prior to application. Forgetting to add seed is a common occurrence.
- Continue moderate agitation during the hydroseeding application to prevent settling and plugging, especially where hose application is utilized.

The mixture of seed, and the soil amendment materials is then carefully sprayed on the soil surface, which has been pre-wetted to a depth of no less than one (1") inch. On steep slopes, it is best to apply in two or more light applications, allowing the **Atlas SoilLok** or equivalent time to penetrate as deeply as possible into the soil surface, and to set up between applications. Applications can be as little as five minutes apart. The Contractor shall not allow any running or dripping of slurry on the ground when spraying - if it runs that means you are going too fast.

The contractor shall have the Inspector present to verify the Seed has been added, the pre-wetting of the soil surface was completed, and the Atlas SoilLok was applied correctly.

The application shall be accomplished using the hose, **NQI** the cannon on top of the hydroseeder.

- Weather:** Application of **Atlas SoilLok** or equivalent must be conducted in dry weather. There must be at least 72 hours of dry weather following application of these products to allow them to cure. If rain or snow is imminent, the application should be postponed until a window of dry weather of at least three (3) days is forecast. **Atlas SoilLok** or equivalent is not to be applied to frozen ground. There can be no exceptions to these rules. To be optimally effective, **Atlas SoilLok** or equivalent must be allowed to cure and it requires dry weather for this to occur.

It is imperative that treated areas are not disturbed subsequent to the completion of revegetation activities. Irrigation system maintenance access disturbance must be restricted to narrow and consistent pathways.

NO.	DESCRIPTION	ENGR. INIT.	DATE

DATE: JULY 2009	SCALE: AS SHOWN
DRAWN BY: JH	DESIGNED BY: CDC
CHECKED BY: CDC	

WOOD RODGERS
 DEVELOPING INNOVATIVE DESIGN SOLUTIONS
 8440 Reno Corporate Drive
 Reno, NV 89511
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NEVADA

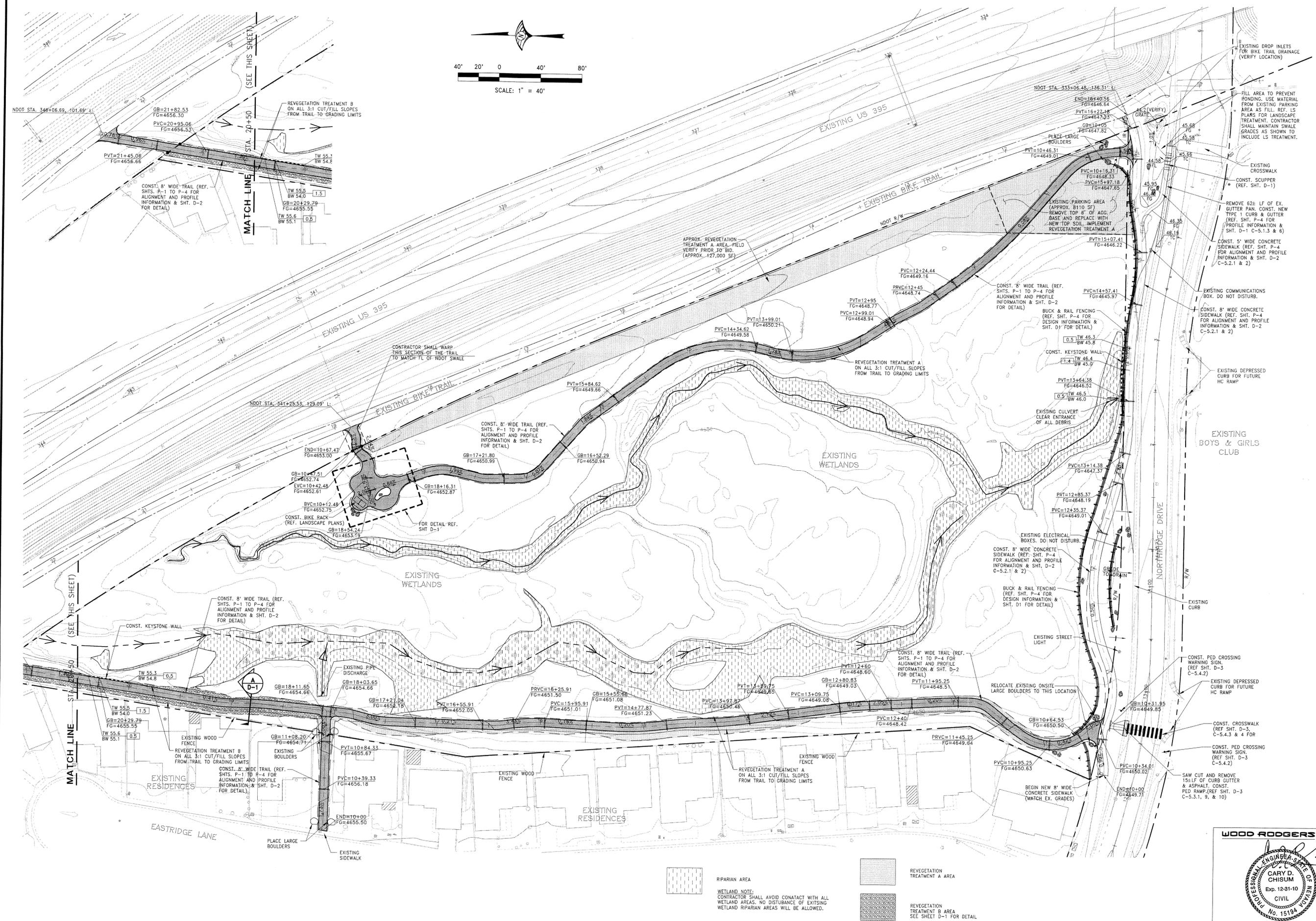
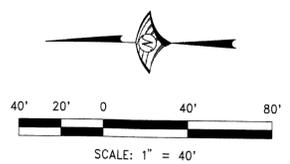
IMPROVEMENT PLANS FOR
CARSON CITY WETLANDS
 SOUTH ACCESS, NORTHBRIDGE DRIVE
 IMPROVEMENT NOTES
 CARSON CITY

PROJECT NO. 3059.011
DRAWING N-2
SHT 3 OF 18

WOOD RODGERS

 DATE: 4-29-10

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- RIPARIAN AREA
- WETLAND NOTE:
CONTRACTOR SHALL AVOID CONTACT WITH ALL WETLAND AREAS. NO DISTURBANCE OF EXISTING WETLAND RIPARIAN AREAS WILL BE ALLOWED.
- VEGETATION TREATMENT A AREA
- VEGETATION TREATMENT B AREA
SEE SHEET D-1 FOR DETAIL

WOOD RODGERS

DATE: 4-29-10

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CARSON CITY

**IMPROVEMENT PLANS FOR
 CARSON CITY WETLANDS
 SOUTH ACCESS, NORTHDRIVE DRIVE
 GRADING SHEET**

DATE: JULY 2009
 SCALE: 1" = 40'
 DRAWN BY: JLH
 DESIGNED BY: CDC
 CHECKED BY: CDC

PROJECT NO. 8059.011
 DRAWING G-1
 SHT 4 OF 18